

What is Claimed:

- 1 1. A cover for a rack to control the temperature of the contents of the rack
2 comprising:
3 a frame having a temperature-controlling element, said frame adapted to be
4 disposed above a rack;
5 a soft hood having a bottom, said hood extending downward from said frame; and
6 a duct fluidly connecting said temperature-controlling element to the bottom of
7 said hood.
- 1 2. The cover of claim 1 wherein said temperature-controlling element is a
2 heater.
- 1 3. The cover of claim 1 wherein said temperature-controlling element is a
2 refrigeration device.
- 1 4. The cover of claim 1 further comprising a blower in said frame.
- 1 5. The cover of claim 1 wherein said frame has four sides and said hood has
2 four sides, and each said hood side attaches to a respective frame side.
- 1 6. The cover of claim 1 wherein said frame is adapted to be attached to a
2 wall or suspended from a ceiling.
- 1 7. The cover of claim 1 wherein said frame is adapted to be disposed on top
2 of a laboratory bottle rack.
- 1 8. The cover of claim 1 wherein said hood has an openable front panel to
2 allow insertion and removal of a rack.
- 1 9. The cover of claim 1 wherein said hood is comprised of a multi-layered
2 material.
- 1 10. The cover of claim 9 wherein said hood is three-layered and one of the
2 three layers is a thermal insulation.
- 1 11. The cover of claim 1 wherein said hood is one piece.

- 1 12. The cover of claim 1 comprising two ducts.
- 1 13. The cover of claim 1 wherein said duct is disposed outside of said hood.
- 1 14. A method of controlling the temperature of a reaction comprising the steps of:
- 2 (a) suspending a flexible hood from a frame to form an enclosed area below the
- 3 frame;
- 4 (b) inserting a reaction vessel into the enclosed area;
- 5 (c) bringing air within the frame to a first desired temperature;
- 6 (d) passing the air from the frame to the bottom of the hood and into the
- 7 enclosed area;
- 8 (e) taking up the air from the enclosed area at the top of the hood and bringing
- 9 it back to said first temperature in the frame; and
- 10 (f) repeating steps (d) and (e) until a desired reaction is complete.
- 1 15. The method of step 14 wherein step (c) comprises warming air within the frame.